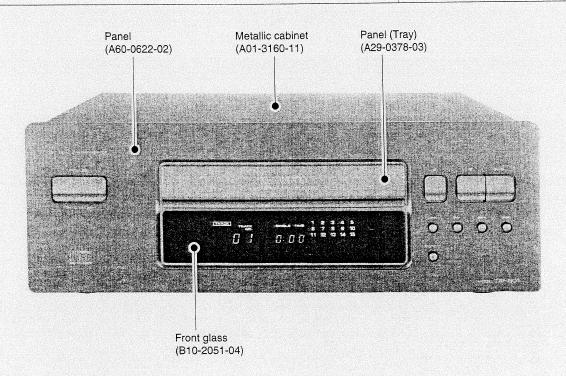
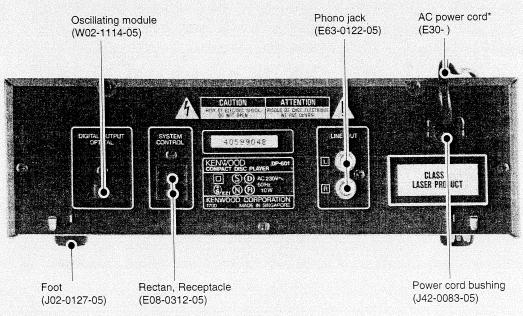
COMPACT DISC PLAYER

DP-601 SERVICE MANUAL

KENWOOD

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In compliance with Federal Regulations, following are reproductions of labels on, or inside the product relating to laser product safety.

KENWOOD -Corp. certifies this equipment conforms to DHHS Regulations No. 21 CFR 1040. 10, Chapter 1, Subchapter J.

DANGER: Laser radiation when open and interlock defeated. AVOID DIRECT EXPOSURE TO BEAM

Please refer to DP-7060(B51-4938-00) service manual, if need description in detail.

CONTENTS/ACCESSORIES/CAUTION

CONTENTS

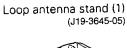
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ACCESSORIES

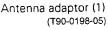
Accessories packaged together with model A-601

AM loop antenna (1) (T90-0195-05)



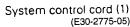








Audio cord (2) (E30-0505-05)

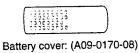




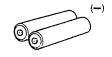
Remote control unit (1) (A70-0993-05)

FM indoor antenna (1)

(T90-0182-15)



Batteries (R6/AA) (2)



Accessories packaged together with model X-601

Audio cord (2) (E30-0505-05)



Accessories packaged together with model LS-200G



Speaker cord (2) (E30-5229-00)

CAUTION

Note related to transportation and movement (CD player)

Before transporting or moving this unit, carry out the following operations.

- ① Turn the power ON but do not load a disc.
 - •Press the ►/II key to check that no disc is present on the tray.
- Wait a few seconds and verify that the display shown appears.

TRACK	 				1	2	3	4	5
1					6	7	8	9	10
	,	,	_	~	11	12	13	14	15
	ರ	í	ב	Ĺ	16	17	18	19	15 20

3 Turn the power OFF.

Beware of condensation

When water vapor comes into contact with the surface of cold material, water drops are produced.

If condensation occurs, correct operation may not be possible, or the unit may not function correctly.

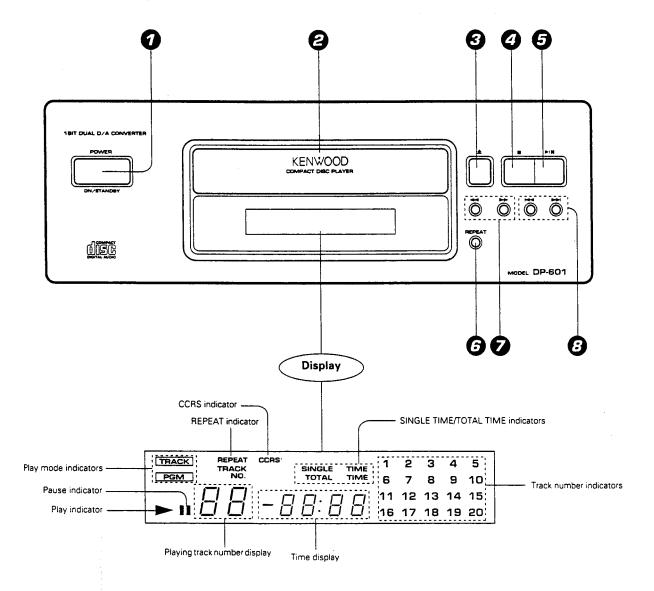
This is not a malfunction, however, and the unit should be dried. (To do this, turn the POWER switch ON and leave the unit as it is for several hours.)

Be especially careful in the following conditions:

- When the unit is brought from a cold place to a warm place, and there is a large temperature difference.
- When a heater starts operating.
- When the unit is brought from an air-conditioned place to a place of high temperature with high humidity.
- When there is a large difference between the internal temperature of the unit and the ambient temperature, or in conditions where condensation occurs easily.

System name	Tuner	Amp	Super woofer	CD player	Cassette deck
HD-600	T-601	A-601	SW-500(Option)	DP-601	X-601

CONTROL



- **O** POWER key
- ② Disc tray
- Tray open/close key (▲)
- Stop key (■)
- **⑤** Play/pause key (►/II)

3 REPEAT key

Press for repeated playback.

Search keys (◄◄,►►)

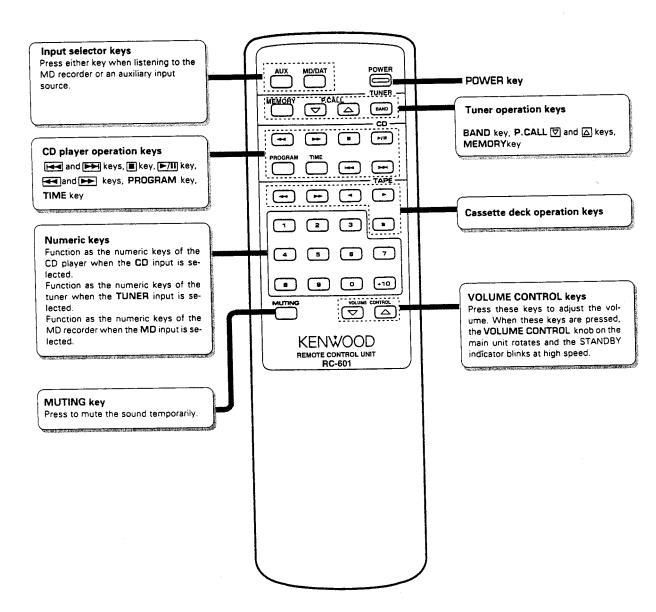
Press to move the played position at high speed in forward or reverse direction.

③ Skip keys (I◄◄,►►I)

Press to skip to the beginning of a track.

REMOTE CONTROL

When the amplifier is connected with the T-601 tuner, DP-601 CD player, X-601 cassette deck through system control cords, these components can be operated from the remote control unit provided with this system.



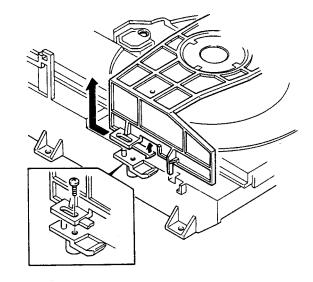
Model: RC-601 Infrared ray system

DISASSEMBLY FOR REPAIR

1. How to Remove Clamper

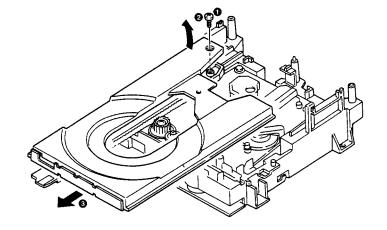
- 1. Remove the cabinet.
- 2. Remove both-sides-catchers of clamper ass'y and slide it backwards.
- 3. Lift the clamper ass'y.

Note: If broken catcher, use screw (2.6 x 8 : N89-2608-46) to fix it.



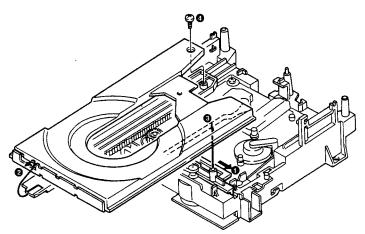
2. How to Remove Tray

- 1. Turn power switch off after tray is open.
- 2. Remove screw (1).
- 3. Lift the tray (2).
- 4. Slide the tray frontwards and remove it (3).



3. How to Mount Tray

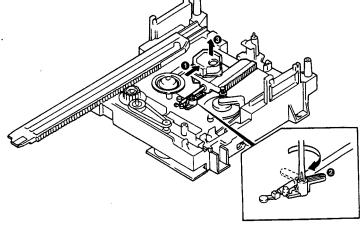
- 1. Slide slider fully rightwards and pull out tray gear frontwards (1).
- 2. Insert tray gear in slit of tray (2).
- 3. Set tray-back-groove to boss of slider (3).
- 4. Fix tray with screw (4).



DISASSEMBLY FOR REPAIR

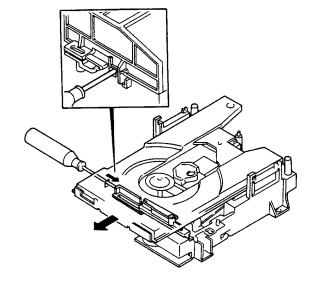
4. How to Replace Pickup

- 1. Remove clamper ass'y and set tray-open.
- 2. Move pickup at center position of its all travel (1).
- 3. Turn rod stopper (2) and lift pickup ass'y (3).

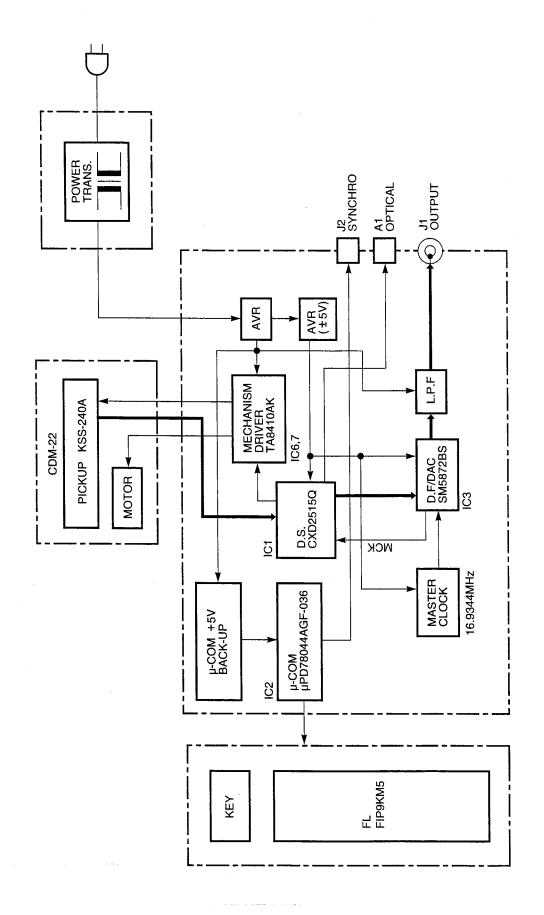


5. How to Open Tray when Tray Not Come Out

- 1. Insert screw driver to left-side hole of mechanism ass'y.
- 2. Push slider rightwards.



BLOCK DIAGRAM



DP-601

CIRCUIT DESCRIPTION

1. 8 Times over sampling 16 bits digital D.A.C : SM5872BS(IC3)

1-1. Pin Connection

хто 🖂	1	28 XTI
xvss 🗀 .	2	27 XVDD
CKSL 🗖	3	26 AVDD4
ско 🖂	4	25 RO
митео 🗖	5	24 AVSS2
MUTE1 🗆	6	23 RON
мсом 🗀	7	22 AVDD3
LRCI 🖂	8	21 AVDD2
BCKI 🖂	9	20 🗀 LON
DI 🗖	10	122VA 🖂 91
MDT/FSEL1	11	18 🗀 LO
MCK/FSEL2	12	17 AVDD1
MLEN/DEEM	13	16 DVDD
RSTN 🖂	14	15 DVSS
ì		

1-2 Pin function

1-2 Pin 1	function							
Pin NO.	Pin name	1/0	Function					
1	XTO	0	O Oscillation output					
2	XVss	-	Crystal GND					
3	CKSL	IP	Connect H level					
4	СКО	0	Oscillation output					
5	MUTEO	0	Infinity zero detection					
6	MUTEI	IP	Mute input H=on/L=off					
7	мсом	IP	Interface select, H=control MDT, MCK, MLEN/L=FSEL1, FSEL2, DEEM					
8	LRCI	IP.	Input data sample rate(fs) clock. H=L-ch/L=R-ch					
9	BCKI	IP	Input data bit clock					
10	DI	ΙP	Input data					
11	MDT/FSEL1	IP	MCOM=H: MDT					
12	MCK/FSEL2	IP	MCOM=H: MCK					
			MCOM=L FSEL2					
		ļ	FSEL1 L H					
		ł	L 44.1kHz 48.0kHz					
			H (44.1kHz) 32.0kHz					
13	MLEN	IP.	MCOM=H: MLEN (microprocessor interface latch enable)					
	+		MCOM=L: DEEM (deemphasis control (DEEM=H/L;emphasis=on/off))					
14	RSTN	-	System reset (H=normal/L=reset)					
15	DVss	-	Digital GND					
16	Vdd	-	Digital Vdd (5V)					
17	AVdd1	-	Analog Vdd (5V)					
18	LO	0	L-ch PWM output(+)					
19	AVss1	-	Analog GND					
20	LON	0	L-ch PWM output(-)					
21	AVdd2	-	Analog Vdd (5V)					
22	AVdd3	-	Analog Vdd (5V)					
23	RON	C	R-ch PWM output					
24	AVss2	-	Analog GND					
25	RO	C	R-ch PWM output					
26	AVdd4		Analog Vdd (5V)					
27	XVdd	.	- Oscillation Vdd (5V)					
28	XTI		Oscillation input (384fs)					
1								

ADJUSTMENT

Test Mode

Setting the test mode

This microprocessor built this unit can be put to TEST MODE by just short-circuiting the test pins (#5 and #6) of main unit.

Key and functions valid in test mode

NO.	Input key	Function	Track No. display
1	PLAY/PAUSE	(1)Focusing servoON	TRACK NO.
	(▶/)	(2) Tracking servoON (3) Feed servoON	<i>05</i>
			. ↓
			Displayed for a few seconds after
			completion (1), (2) and (3).
			Time. (Play mark),
			and Disc Track No. are displayed.
2	STOP	(1) Focusing servoOFF	
	(🔳)	(2) Tracking servoOFF	*See below
	(- /	(3) Feed servoOFF	
3	UP	Turns all FL display lamps ON.	TRACK NO.
	(▶►)		88
4	DOWN	Turns all FL display lamps OFF.	TRACK NO.
	(►)		88
L			TRACK NO. is lighted.

ΨĪ	ГD	۸	CK	N	\sim
*	ıĸ	м	L N	IV	U).

7	FG	TG
	E BB	RF
		vc

ADJUSTMENT-FREE

This device(CXD2515) has AVERAGE and AUTO GAIN CONTROL circuitry in its as DP-601 is adjustment-free.

Please confirm the self-check value on display as follows and dc voltage in schematic diagram before replacing pickup.

SELF-CHECK VALUE TABLE

	DISPLAY VALUE
FOCUS GAIN (FG)	18 <fg<57< td=""></fg<57<>
TRACKING GAIN (TG)	19 <tg<68< td=""></tg<68<>
CENTER VOLTAGE (VC)	25 <vc<75< td=""></vc<75<>
FOCUS ERROR BALANCE (FE)	25 <fe<75< td=""></fe<75<>
RATIO FREQUENCY (RF)	57 <rf<66< td=""></rf<66<>

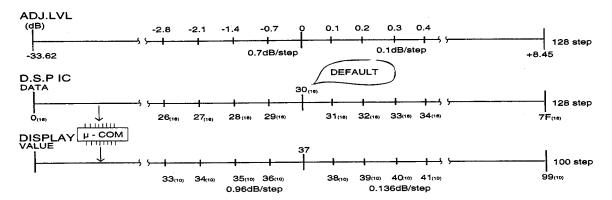
These value is by test disk KTD-02, YEDS-16, and YCD761.

PGM in the display is blink if not adjust. Please check circuit.

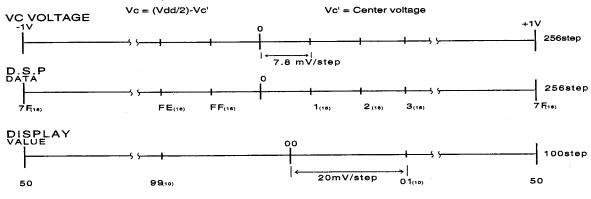
ADJUSTMENT

SELF-CHECK VALUE DISPLAY PROCESS

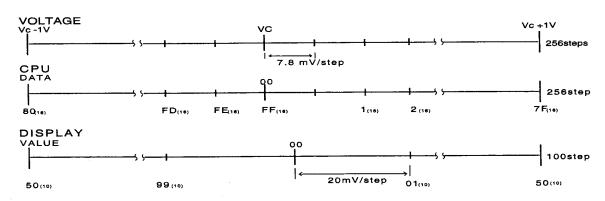
① FG/TG



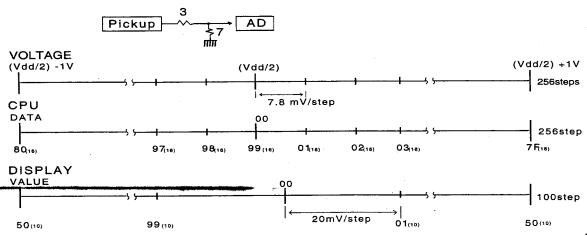
② VC

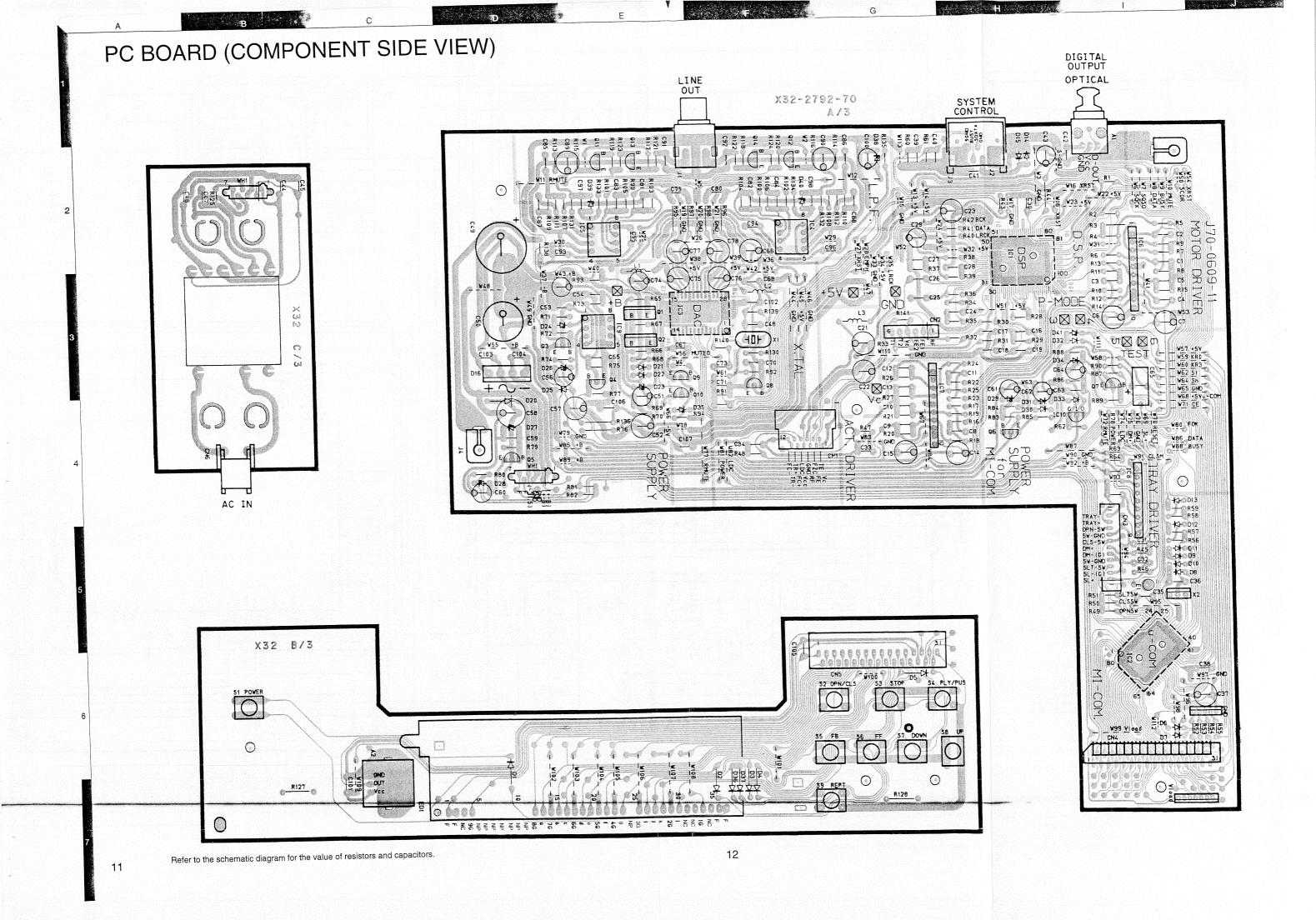


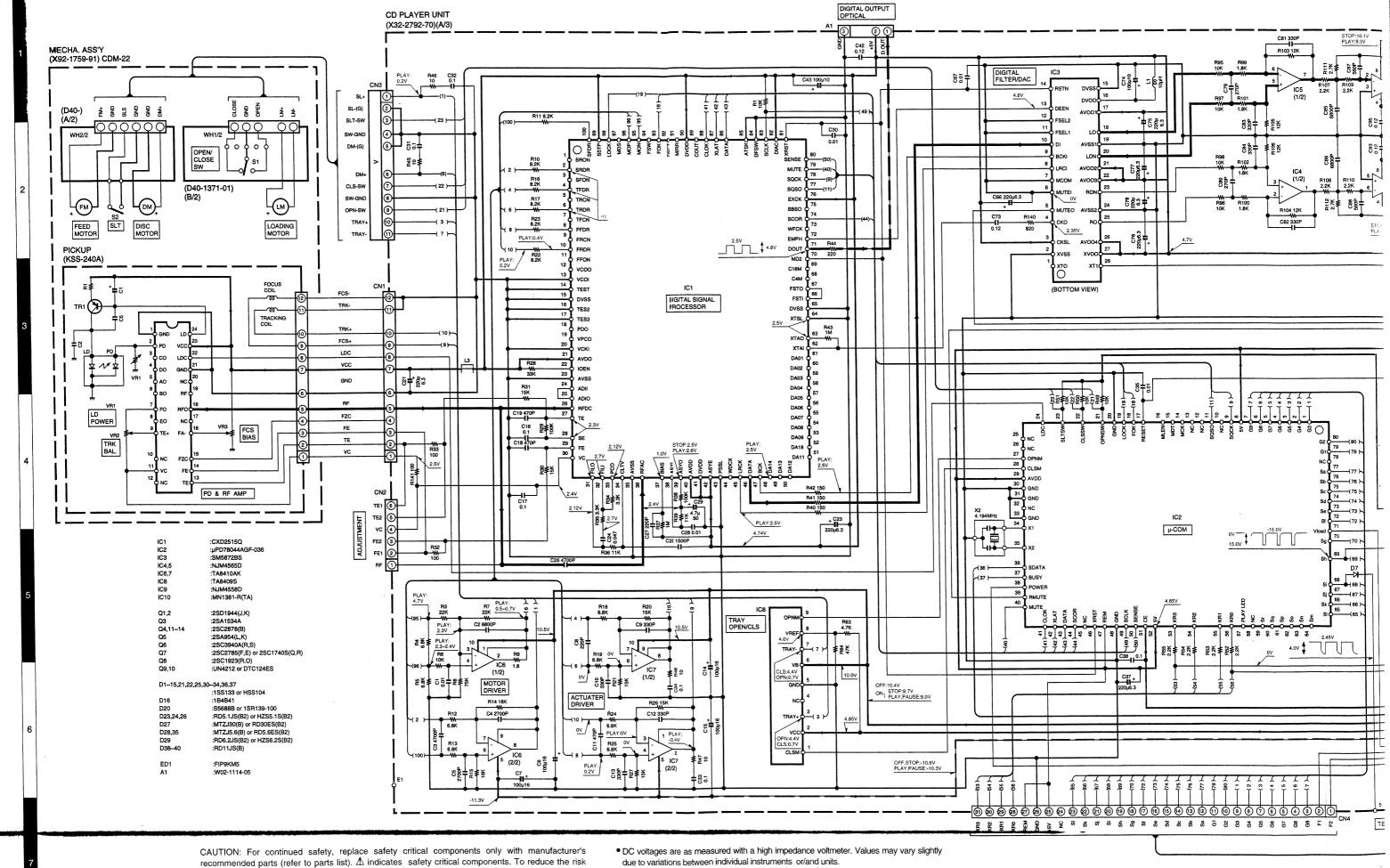
3 FE



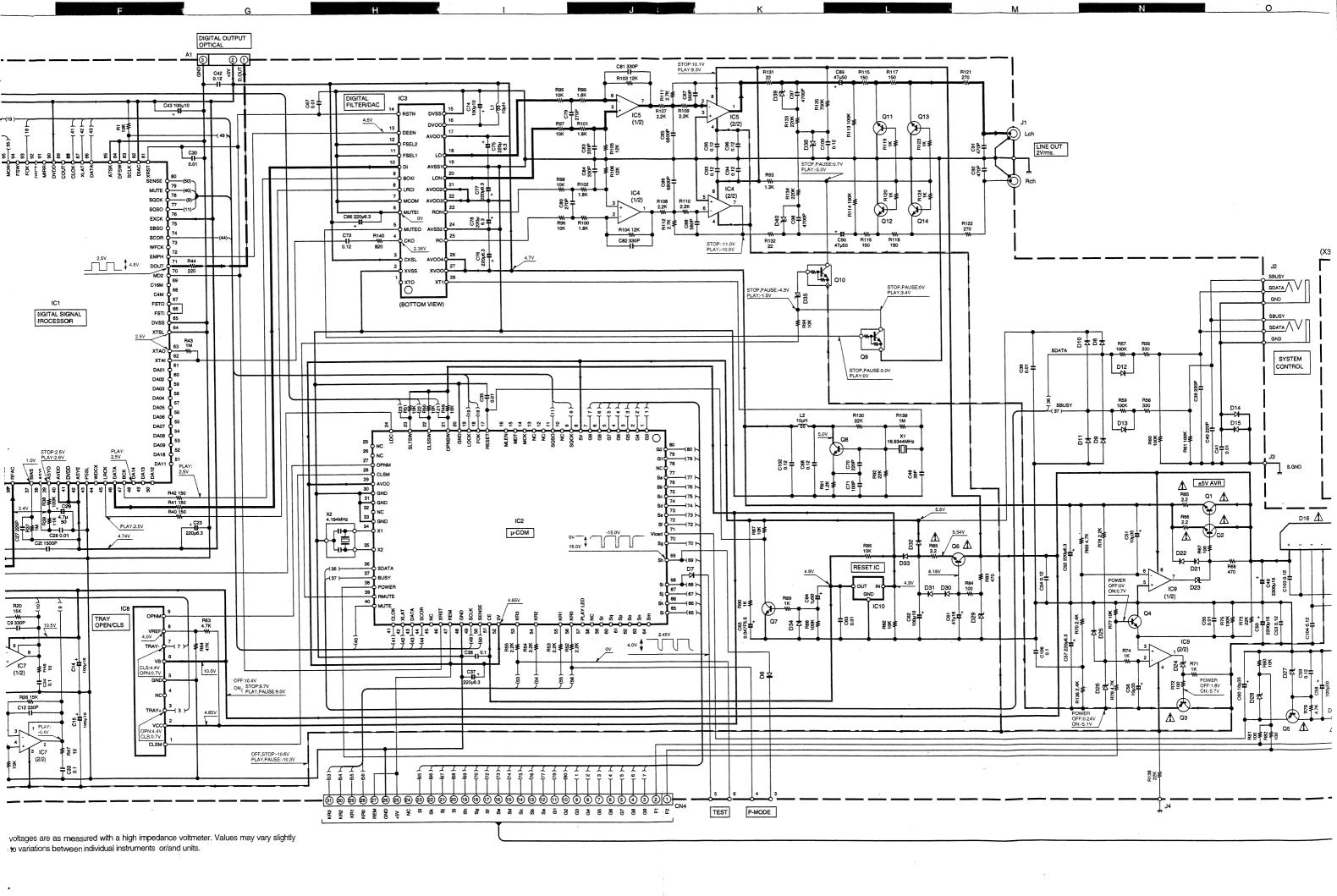
4 RF

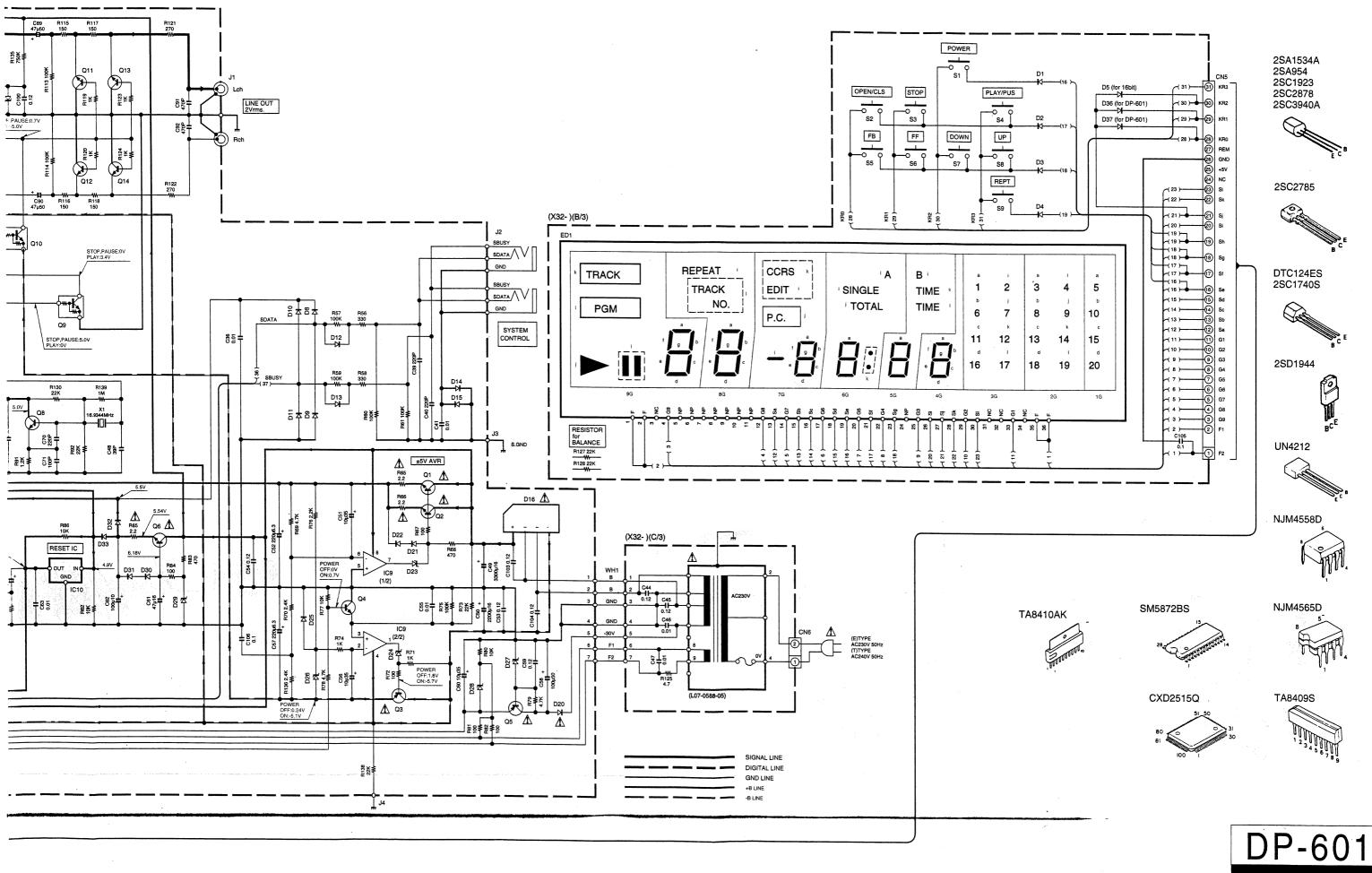






recommended parts (refer to parts list). Δ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is retuned to the customer.

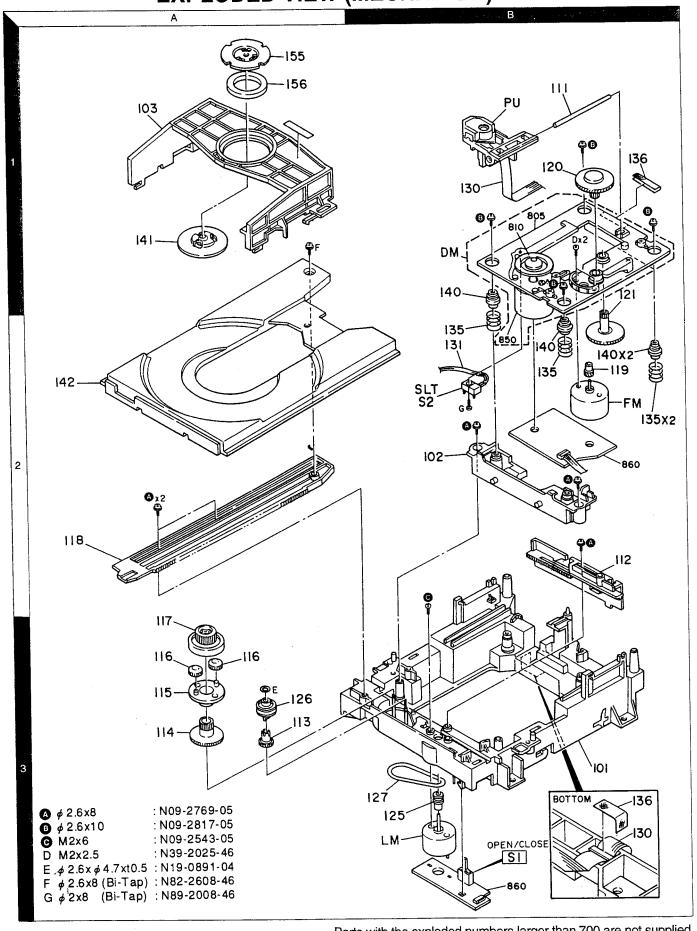




Y22-3840-51

KENWOOD

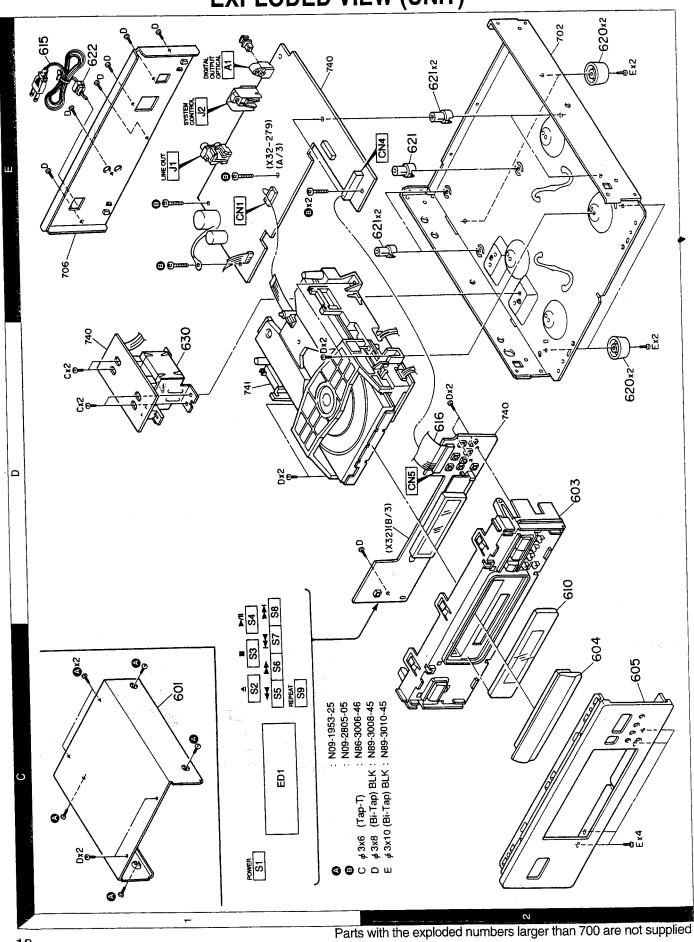
EXPLODED VIEW (MECHANISM)



Parts with the exploded numbers larger than 700 are not supplied

DP-601

EXPLODED VIEW (UNIT)



PARTS LIST

× New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

	Ref.	No.	Add	ress	New	F	arts	No.	De	scription			Re-
	参照	番号	位	置	Parts 新	部	딞	番号	部品	名/規	*		marks 備考
								D	P-601				
	601 603 604 605		1C 2D 2C 2C		* * *	A01-3 A22-1 A29-0 A60-0	682 378	-01 -03	METALLIC CABI SUB PANEL PANEL (TRAY) PANEL	NET			
	610		2 D		*	B10-2	051	-04	FRONT GLASS				
<u>↑</u>	615 615 616		1E 1E 2D			E30-2 E30-2 E31-4	602	-05	AC POWER CORD AC POWER CORD WIRING HARNES)		E	
	- - - -				*	H10-5 H10-5 H25-0 H25-0 H50-1	839 397 659	-02 -04 -04	POLYSTYRENE F POLYSTYRENE F PROTECTION BA PROTECTION BA ITEM CARTON C	FOAMED FIX NG NG		E	
Æ	620 621 622		2D 2E 1E	, 2E		J02-0 J19-3 J42-0 J61-0	690 083	1-04 3-05	FOOT UNIT HOLDER POWER CORD BU WIRE BAND	JSHING			
Λ	630		10			L07-0			POWER TRANSFO				
	C1					CF 92F		NTROL	_(X32-2792 MF				Τ
	C2 C3 C4	5 7				CF92F CF92F CF92F	V1F V1F V1F	1682J 1472J	MF MF MF ELECTRO	0.010UF 6800PF 4700PF 2700PF 100UF	J J J 16WV		
	C8 C9 C11 C12 C14					CF921 CF921 CF921	V1F V1F V1F	H221K H331K H471J H331K C101MCC	MF MF MF ELECTRO	220PF 330PF 470PF 330PF 100UF	K K J K 16WV		
	C16 C18 C21 C23 C24					CF92 CE04 CE04	V11 WO.	H104J H471J J221MCC J221MCC H473J	MF MF ELECTRO ELECTRO MF	0.10UF 470PF 220UF 220UF 0.047UF	J 6.3WV 6.3WV J	,	
48 V.	C25 C26 C27 C28 C29					CF92 CF92 CF92	FV1 FV1 FV1	H152J H472J H221K H103J H4R7MCC	MF MF MF ELECTRO	1500PF 4700PF 220PF 0.010UF 4.7UF	J J K J 50WV		
	C30 C31 C35 C37 C38					CF92 CF92 CE04	FV1 FV1 LW0	H103J H104J H103J J221MCC H104J	MF MF MF ELECTRO MF	0.010UF 0.10UF 0.010UF 220UF 0.10UF	J J 6.3WV J		
	C39 C41 C42 C43 C44					CF92 CF92 CE04	FV1 FV1 LW1	H221K H103J H124J A101MCC H124J	MF MF MF ELECTRO MF	220PF 0.010UF 0.12UF 100UF 0.12UF	K J J 10WV J		
obak a alpe i	C46 C48	,47	 				-	H 103 J 1H390J	MF CERAMIC	0.010UF 39PF	J J		

L:Scandinavia

K:USA

P:Canada

Y:PX(Far East, Hawaii)

E:Europe T:England X:Australia

Y:AAFES(Europe)

M:Other Areas

19

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No.	Address		Parts No.	Description	Desti- Re-
参照番号	位 置	Parts 新	部品番号	部品名/規格	仕 向 備考
249 250 251 252 253 ,54			CE04LW1C332MCC CE04LW1C222MCC CE04LW1V100MCC CE04LW0J221MCC CF92FV1H124J	ELECTRO 3300UF 16WV ELECTRO 2200UF 16WV ELECTRO 10UF 35WV ELECTRO 220UF 6.3WV MF 0.12UF J	
055 056 057 058 059			CF92FV1H103J CE04LW1V100MCC CE04LW0J221MCC CE04LW1H101MCC CF92FV1H124J	MF 0.010UF J ELECTRØ 10UF 35WV ELECTRØ 220UF 6.3WV ELECTRØ 100UF 50WV MF 0.12UF J	
060 061 062 063 064			CE04LW1V100MCC CE04LW1C470MCC CE04LW1A101MCC CF92FV1H103J CE04LW1H010MCC	ELECTRO 10UF 35WV ELECTRO 47UF 16WV ELECTRO 100UF 10WV MF 0.010UF J ELECTRO 1.0UF 50WV	
C65 C66 C67 C68 C70			C90-1826-05 CE04LW0J221MCC CF92FV1H103J CF92FV1H124J CC45FSL1H221J	BACKUP 0.047F 5.5WV ELECTRO 220UF 6.3WV MF 0.010UF J MF 0.12UF J CERAMIC 220PF J	
C71 C73 C74 C75 -78 C79 ,80			CC45FSL1H101J CF92FV1H124J CE04LW1A101MCC CE04LW0J221MCC CF92FV1H271K	CERAMIC 100PF J MF 0.12UF J ELECTRO 100UF 10WV ELECTRO 220UF 6.3WV MF 270PF K	
C81 -84 C85 ,86 C87 ,88 C89 ,90 C91 ,92			CF92FV1H331K CF92FV1H682J CF92FV1H561J CE04LW1H470MCC CF92FV1H471J	MF 330PF K MF 6800PF J MF 560PF J ELECTRØ 47UF 50WV MF 470PF J	
C93 -96 C97 ,98 C100 C102-104 C105-107			CF92FV1H124J CF92FV1H472J CF92FV1H124J CF92FV1H124J CF92FV1H104J	MF 0.12UF J MF 4700PF J MF 0.12UF J MF 0.12UF J MF 0.10UF J	
CN1 CN4 CN5 J1 J2	1E 2E 2D 1E 1E	*	E40-4631-05 E40-4171-05 E40-4211-05 E63-0122-05 E08-0312-05	FLAT CABLE CONNCTOR(PICKUP) FLAT CABLE CONNCTOR FLAT CABLE CONNCTOR PHONO JACK (LINE OUT) RECTAN. RECEPTACLE (SYNCHRO)	
J3		*	F10-0954-04	SHIELDING PLATE	
-			J11-0098-05 J19-3392-04	WIRE CLAMPER (E1) HOLDER (FL)	
L1 ,2 L3 X1 X2			L40-1001-17 L92-0018-05 L77-1164-05 L78-0267-05	SMALL FIXED INDUCTOR(10UH,K) FERRITE CORE CRYSTAL RESONATOR(16.9344MHZ) RESONATOR (4.194MHZ)	
R131,132 R133,134 R138			RN14BK2C22R0F RN14BK2C2203F RN14BK2C2202F	RN 22.0 F 1/6V RN 220K F 1/6V RN 22.0K F 1/6V	,
S1 -9	10,10		S40-1064-05	PUSH SWITCH	
D1 -15		-	H5S104	DIØDE	

PARTS LIST

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No.	Address		Parts No.	Description		e- arks
参照番号	位 置	新	部品番号	部 品 名 / 規 格	仕 向領	铐
1 -15 16 20 20 21 ,22			1SS133 1B4B41 S5688B 1SR139-100 HSS104	DIODE DIODE DIODE DIODE		
21 ,22 23 ,24 23 ,24 25 25			1SS133 HZS5.1S(B2) RD5.1JS(B2) HSS104 1SS133	DIODE ZENER DIODE ZENER DIODE DIODE DIODE		
026 026 027 027 028		*	HZS5.1S(B2) RD5.1JS(B2) MTZJ30(B) RD30ES(B2) MTZJ5.6(B)	ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE ZENER DIODE		
)28)29)29)30 -34)30 -34			RD5.6ES(B2) HZS6.2S(B2) RD6.2JS(B2) HSS104 1SS133	ZENER DIODE ZENER DIODE ZENER DIODE DIODE DIODE		
035 035 036 ,37 036 ,37			MTZJ5.6(B) RD5.6ES(B2) HSS104 1SS133 RD11JS(B)	ZENER DIODE ZENER DIODE DIODE DIODE ZENER DIODE		
ED1 IC1 IC2 IC3 IC4 ,5	1C		FIP9KM5 CXD2515Q UPD78044AGF-036 SM5872BS NJM4565D	INDICATOR TUBE IC MI-COM IC MOS-IC IC(OP AMP X2)		
IC6 ,7 IC8 IC9 IC10 Q 1 ,2			TA8410AK TA8409S NJM4558D MN1381-R(TA) 2SD1944(J,K)	IC(POWER OP AMP) IC(MOTOR CONTROL) IC(OP AMP X2) IC(VOLTAGE DETECT) TRANSISTOR		
Q3 Q4 Q5 Q6 Q7			2SA1534A 2SC2878(B) 2SA954(L,K) 2SC3940A(R,S) 2SC1740S(Q,R)	TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR TRANSISTOR		
Q7 Q8 Q9 ,10 Q9 ,10 Q11 -14			2SC2785(F,E) 2SC1923(R,0) DTC124ES UN4212 2SC2878(B)	TRANSISTOR TRANSISTOR DIGITAL TRANSISTOR TRANSISTOR TRANSISTOR		
A 1	1E		W02-1114-05	OSCILLATING MODULE		
101	3B		MECHANIS A10-2974-11		1	
102 103	2B 1A		A11-0756-03 A11-0757-02	SUB CHASSIS (FRAME) SUB CHASSIS (CLAMPER)		
111 112	18 28		D10-2490-04 D10-3253-03	ROD SLIDER		
114	3A		D13-0976-03	GEAR		
	参照番号 1 -15 120 220 21 ,22 21 ,22 223 ,24 225 266 227 228 229 230 -34 25 266 27 27 28 28 29 29 300 -34 31 31 31 31 31 31 31 31 31 31 31 31 31	参照番号 位置 1 -15 16 20 20 21 ,22 21 ,22 23 ,24 25 26 26 26 27 27 28 28 29 29 29 330 -34 335 335 ,37 336 ,37 336 ,37 336 ,37 338 -40 ED1 1C ICC1 ICC2 ICC3 ICC4 ,5 ICC6 ,7 ICC8 ICC9 ICC10 Q1 ,2 Q3 Q4 Q5 Q7 Q7 Q8 Q9 ,10 Q1 ,1 Q7 Q8 Q9 ,10 Q1 ,1 Q1 ,2 Q3 Q4 Q1 ,1 Q4 ,1 Q	参照番号 位 谭 Parts 新 1	参照番号 位 電 新 部 品 番号 1 -15 16 20 21 , 22 21 , 22 23 , 24 23 , 24 25	#	#

L:Scandinavia

K:USA

P:Canada

Y:PX(Far East, Hawaii)

T:England

E:Europe

Y:AAFES(Europe)

X:Australia

M:Other Areas

PARTS LIST/SPECIFICATIONS

* New Parts

Parts without Parts No. are not supplied.

Les articles non mentionnes dans le Parts No. ne sont pas fournis.

Teile ohne Parts No. werden nicht geliefert.

Ref. No.	Address	New Parts	Parts No.	Description	nation	Re- marks
参照番号	位 置	新	部品番号	部品名/規格	仕 向	備考
115 116 117 118 119	3A 3A 2A 2A 2B		D13-0977-03 D13-0978-03 D13-0979-03 D13-0980-02 D13-0894-05	GEAR GEAR (IDLER) GEAR LACK (GEAR) GEAR (MOTOR)		-
120 121 125 126 127	1B 1B 3B 3A 3B		D13-0895-05 D13-0896-05 D15-0328-04 D15-0329-03 D16-0333-03	GEAR (INTERMEDATE) GEAR (FEED) MOTOR PULLEY PULLEY BELT		
130 131	1B,3B 2B	*	E35-0904-05 E35-0420-05	FLAT CABLE LEAD WIRE		
135 136	2B 1B,3B		G01-3326-14 G10-0146-04	COMPRESSION SPRING NON-WOVEN FABRIC		
140 141 142	1B,2B 1A 2A		J02-1058-15 J11-0180-03 J99-0514-01	INSULATOR CLAMPER TRAY		
S1 S2	3B 2B		S33-2062-05 S33-1022-05	LEVER SWITCH LEVER SWITCH		
155 156 DM FM LM	1 A 1 A 1 B 2 B 3 B		T50-1058-04 T99-0503-15 A11-0733-05 T42-0532-05 T42-0609-05	YOKE MAGNET SUB CHASSIS ASSY (DISC MOTOR) DC MOTOR (FEED MOTOR) DC MOTOR (LOADING MOTOR)		
PU	1 B		T25-0022-05	OPTICAL PICKUP HEAD		

L:Scandinavia K:USA P:Canada Y:PX(Far East, Hawaii) T:England E:Europe Y: AAFES(Europe) X:Australia M:Other Areas

ndicates safety critical components.

SPECIFICATIONS

Format

System..... compact disc digital audio system

D/A converter

D / A conversion Oversampling 8 fs (352.8 kHz)

Audio

Frequency response...... 4 Hz ~ 20 kHz,±0.5 dB

	Less than 0.0037 % (at 1 kHz)More than 98 dB (at 1 kHz) Unmeasurable limit
	2 V / 0.57k n
Optical	15 dBm ~ -21 dBm (Wave length 660 nm)

General

Power consumption	10 W
Dimensions	W: 270 mm
	H: 98 mm
	D: 315 mm
Weight (Net)	3.5 kg
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Note: KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on, the U.S.A.(K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD CORPORATION

14-6, Dogenzaka 1-chome, Shibuya-ku, Tokyo, 150 Japan

KENWOOD SERVICE CORPORATION

P.O BOX 22745, 2201 East Dominguez St., Long Beach, CA 90801-5745, U.S.A.